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Zionsville robotics team to compete in world championship

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Two robots, constructed and operated by Zionsville students, collected tennis balls and dropped them into a trough on their way to winning first and sixth place in a contest Saturday, and qualifying the students to compete in a world championship.

Working autonomously and by remote control, the Steel Eagle I and II robots -- built by the Zionsville Community High School's Robotics Club -- competed in the Vex Robotics Bridge Battle Regional Qualifier at the Indianapolis Airport.

The Steel Eagle II team went undefeated in five preliminary rounds to place first, and the Steel Eagle I team had one loss to Steel Eagle II in preliminary rounds and placed sixth. The two teams partnered in the Elimination Tournament and captured first place.

Both teams will compete at the Bridge Battle World Championships at California State University May 1-3.

On Monday, several members of the Robotics Club demonstrated their winning robots for state lawmakers at the annual Technology Educators of Indiana Day at the Statehouse.

Club sponsor Matt Mulholland, a physics teacher at ZCHS, said learning how technology works will help the students as they enter college and the workforce, and help build Indiana's future.

"Looking at what the governor's trying to do to entice tech businesses to Indiana, this is a great way to get kids excited about science and tech stuff, and these are the people who will eventually fill those jobs," Mulholland said.

Leading up to the competition, several students gathered in a science classroom after school to finish final preparations. A few scrambled to complete a simulated arena for the robots, while others were busy completing their machine's programming.

Robotics Club members estimated it took approximately 30 hours to build each robot, and each one was constantly tweaked to make it work better and faster.

Junior Keher Neote said both robots underwent significant changes.

"We kept changing designs mid-build," he said. "There's a lot of trial and error and helping each other out."

That's music to Mulholland's ears.

"Seeing students get excited about academic material outside of the classroom, it makes you realize what education is all about," Mulholland said. "It's reinvigorated me as a teacher."

Each robot operated autonomously for the first 20 seconds of the 2-minute rounds on Saturday, with a student handling the controls for the remaining 100 seconds. Mullholland traced his teams' success to the autonomous period, as only a few teams programmed their robots to run independently.

The Robotics Club entered its first competition in November, after another team dropped out. With only 24 hours to prepare, the team placed 20th out of more than 80 teams.

In addition to the technical skills learned by creating a robot, the students learn about diplomacy and teamwork at competitions, Mulholland said. Teams are randomly paired in two-on-two matches in the preliminary rounds, but the top teams have to lobby other teams to join forces in later rounds.